EXHIBIT A

Appendix of Amendments

38. (Amended) A [The] recombinant DNA molecule [according to claim 37, wherein said DNA sequence (b) which hybridizes to said DNA insert (a) is] comprising the portion of a DNA sequence selected from the group consisting of the following subcloned fragments that hybridizes to at least one of the DNA inserts of Z-pBR322 (Pst)/HcIF-II-206 and Z-pBR322 (Pst)/HcIF-SN35-AHL6 [the hybridizing portion of each of]:

HchrIF-A, the subcloned HindIII fragment of chr 3 in E.coli HB101;

HchrIF-B, the subcloned EcoRI fragment of chr 12 in E.coli HB101;

HchrIF-C, the subcloned HindIII fragment of chr 12 in E.coli HB101;

HchrIF-D, the subcloned EcoRI fragment of chr 13 in E.coli HB101;

HchrIF-E, the subcloned EcoRI fragment of chr 23 in E.coli HB101;

HchrIF-F, the subcloned HindIII fragment of chr 23 in E.coli HB101;

HchrIF-G, the subcloned EcoRI fragment of chr 26 in E.coli HB101; and

HchrIF-H, the subcloned HindIII fragment of chr 26 in E.coli HB101.

40. (Amended) A [The] recombinant DNA molecule [according to claim 37] comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

TTACTGGTGGCCCTCCTGGTGCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCTGTGAT

CTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATG

AGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAG

GAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCATGAGATG

ATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAG

ACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTGGAAGCC

TGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATT

CTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATAC

AGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCA

ACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA

and

TGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCA

CAGATGAGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTT

CCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCAT

GAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGG

GATGAGACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTG

GAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGAC

TCCATTCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAG

AAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCT

TTGTCAACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA.

41. (Amended) A [The] recombinant DNA molecule [according to claim 37] comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

ATGGCCCTGTCCTTTTCTTTACTGATGGCCGTGCTGGTGCTCAGCTACAAATCCATC
TGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTG
ATACTCCTGCAACAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACAT
GATTTCGGATTCCCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCC
ATCTCTGTCCTCCATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGAC
TCATCTGCTGCTTGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAG
CAACTGAATGACCTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCC
CTGATGAATGTGGACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTT
TATCTAACAGAGAAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATC
ATGAGATCCCTCTCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT

and

TGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTGATACTCCTGCAA
CAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACATGATTTCGGATTC
CCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTC
CATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCT
TGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGAC
CTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCCCTGATGAATGTG
GACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAG
AAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTC
TCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT.

42. (Amended) The recombinant DNA molecule according to any one of claims 38, 40 and 41 [claim 37], wherein said DNA sequence is operatively linked to an expression control sequence.

45. (Amended) A [The] recombinant DNA molecule [according to claim 37] selected from the group consisting of [C8-IFN-α1,] C8-IFN-α2, LAC-AUG(α2) and ß-lac-AUG(α2).

46. (Amended) A host cell transformed with at least one recombinant DNA molecule according to any one of claims 38 and 40-45 [claim 37].

48. (Amended) A [The] transformed host cell [according to claim 46 selected from the group consisting of], wherein said host cell is E.coli HB101(Z-pBR322(Pst)/HcIF-II-206) [and E.coli HB101(Z-pBR322(Pst)/HcIF-SN35-AHL6].

49. (Amended) A [The] transformed host cell [according to claim 46] selected from the group consisting of HchrIF-A, wherein HchrIF-A is the subcloned HindIII fragment of chr 3 in E.coli HB101; HchrIF-B, wherein HchrIF-B is the subcloned EcoRI fragment of chr 12 in E.coli HB101; HchrIF-C, wherein HchrIF-C is the subcloned HindIII fragment of chr 12 in E.coli HB101; HchrIF-D, wherein HchrIF-D is the subcloned EcoRI fragment of chr 13 in E.coli HB101; HchrIF-E, wherein HchrIF-E is the subcloned EcoRI fragment of chr 23 in E.coli HB101; HchrIF-F, wherein HchrIF-F is the subcloned HindIII fragment of chr 23 in E.coli HB101; HchrIF-G, wherein HchrIF-G is the subcloned EcoRI fragment of chr 26 in E.coli

HB101; and HchrIF-H, wherein HchrIF-H is the subcloned HindIII fragment of chr 26 in E.coli HB101[; HchrIF-I, wherein HchrIF-I is the subcloned HindIII/BamHI fragment of chr 35 in E.coli HB101; and HchrIF-J, wherein HchrIF-J is the subcloned BamHI fragment of chr 35 in E.coli HB101].

50. (Amended) A [The] transformed host cell [according to claim 46] selected from the group consisting of [E.coli DS410 (C8-IFN-α1),] E.coli DS410 (C8-IFN-α2), E.coli DS410 (LAC-AUG(α2))[,] and E.coli DS410 HB101 (ßlac-AUG(α2)) [Mouse 3T3 (polyoma-Hif-chr35].

51. (Amended) A method for producing a recombinant DNA molecule comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

TTACTGGTGGCCCTCCTGGTGCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCTGTGAT
CTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATG
AGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAG
GAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCATGAGATG
ATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAG
ACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTGGAAGCC
TGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATT
CTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATAC
AGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCA
ACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA;

TGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCA

CAGATGAGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTT

CCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCAT

GAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGG

GATGAGACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTG

GAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGAC

TCCATTCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAG

AAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCT

TTGTCAACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA;

ATGGCCCTGTCCTTTTCTTTACTGATGGCCGTGCTGGTGCTCAGCTACAAATCCATC

TGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTG

ATACTCCTGCAACAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACAT

GATTTCGGATTCCCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCC

ATCTCTGTCCTCCATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGAC

TCATCTGCTGCTTGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAG

CAACTGAATGACCTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCC

CTGATGAATGTGGACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTT

TATCTAACAGAGAAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATC

ATGAGATCCCTCTCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT;

and

TGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTGATACTCCTGCAA
CAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACATGATTTCGGATTC
CCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTC
CATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCT
TGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGAC
CTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCCCTGATGAATGTG
GACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAG
AAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTC
TCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT,

comprising the step of culturing a host cell containing at least one recombinant DNA molecule of claim 40 or 41 under conditions in which the host cell replicates the recombinant DNA molecule [comprising the step of introducing into a cloning vehicle a DNA sequence selected from the group consisting of:

(a) the DNA inserts of Z-pBR322(Pst)/HcIF-II-206 and Z-pBR322(Pst)/HcIF-SN-35-AHL6,

(b) DNA sequences which hybridize to any of the foregoing DNA inserts and which code for a polypeptide of the IFN-α type and

(c) DNA sequences which on expression code for a polypeptide coded for on expression by any of the foregoing DNA sequences and inserts].